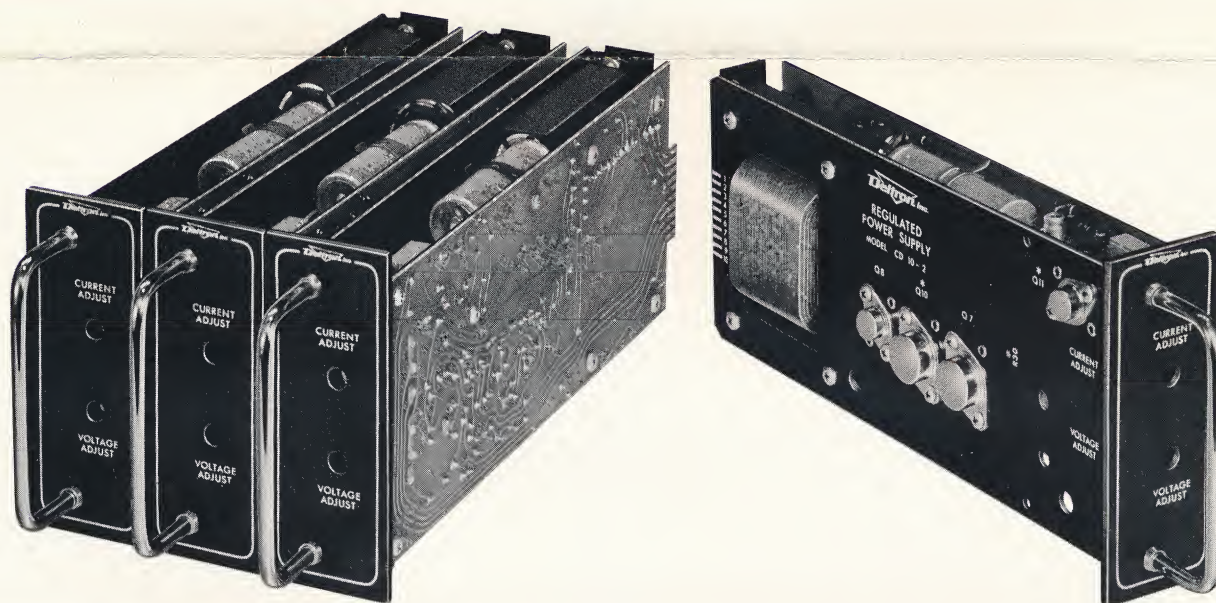


# 71°C

## SILICON CARD MODULES



TWO  
NEW FAMILIES OF

ULTRA THIN – 2"  
HIGH REGULATION – .01%  
LOW COST – \$88.00

POWER SUPPLIES

**CD SERIES** 12 AUTOMATIC CROSSOVER MODELS    **CA SERIES** 12 CURRENT LIMITING MODELS

**Deltron** inc.

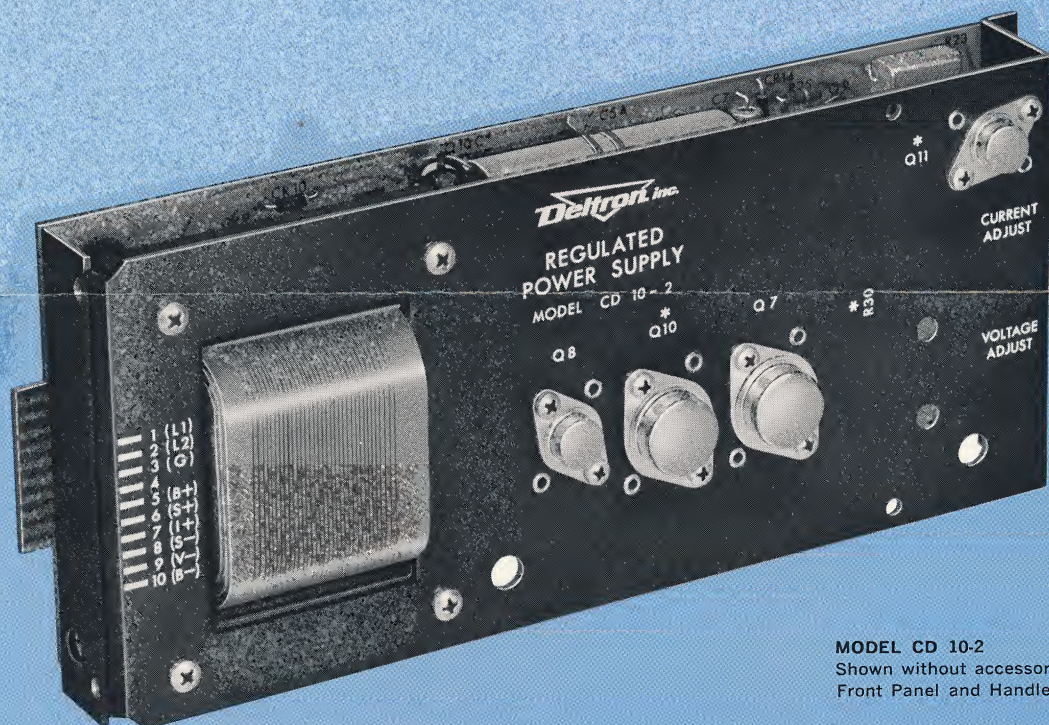




## CD AND CA SERIES SILICON CARD MODULES

Deltron brings you the remarkable, new CD Series of Silicon Card Module, high precision power supplies that feature the DUET® twin amplifier, which controls voltage and current with automatic crossover to either mode. Where automatic crossover is not required the CA Series of Card Modules with continuously adjustable current limiting is available for maximum economy. The versatile Mechanical design of CD and CA Modules permits the use of **as many as eight** of the models in card-rack assemblies, such as the Elco VARIPAK. For other built in applications, horizontal mounting is done by means of brackets furnished with the modules. Retaining nuts are provided for vertical mounting or to prevent removal of power supply from card rack.

We invite you to compare these power supplies with any others on the market . . . feature for feature . . . and cost. You will find the DUET® CD Series and the CA Series superior in PERFORMANCE . . . QUALITY . . . and PRICE to any others available today.



MODEL CD 10-2  
Shown without accessory  
Front Panel and Handle



**TABLE 1**  
**SILICON CARD MODULES**  
**AUTOMATIC CROSSOVER MODELS**

MODEL	DC OUTPUT RANGE		PRICE
	Volts	Amps	
CD 10-1	0-10	0-1	\$109.00
CD 10-2	0-10	0-2	149.00
CD 20-5	0-20	0-5	109.00
CD 20-1	0-20	0-1	149.00
CD 40-3	0-40	0-3	109.00
CD 40-6	0-40	0-6	149.00
CD 60-2	0-60	0-2	114.00
CD 60-4	0-60	0-4	155.00
CD 80-15	0-80	0-15	114.00
CD 80-3	0-80	0-3	155.00
CD 100-12	0-100	0-12	114.00
CD 100-24	0-100	0-24	155.00

**TABLE 2**  
**SILICON CARD MODULES**  
**CURRENT LIMITING MODELS**

MODEL	DC OUTPUT RANGE		PRICE
	Volts	Amps	
CA 10-1	0-10	0-1	\$ 88.00
CA 10-2	0-10	0-2	128.00
CA 20-5	0-20	0-5	88.00
CA 20-1	0-20	0-1	128.00
CA 40-3	0-40	0-3	88.00
CA 40-6	0-40	0-6	128.00
CA 60-2	0-60	0-2	92.00
CA 60-4	0-60	0-4	133.00
CA 80-15	0-80	0-15	92.00
CA 80-3	0-80	0-3	133.00
CA 100-12	0-100	0-12	92.00
CA 100-24	0-100	0-24	133.00

## FEATURES OF *Deltron* CD AND CA CARD MODULES

1. **0.01% regulation** provided by high performance silicon transistor differential amplifier with stabilized zener reference in a novel impedance cancelling circuit. CD units feature DUET® twin amplifier system which permits continuous control of voltage or current with automatic electronic crossover to either mode of operation. CA units have continuously adjustable current limiting.

2. **Floating output**—either positive or negative output terminal may be grounded to the separate ground terminal provided, or may be floated up to 300 volts above ground.

3. **No overshoot** on turn on, turn off, or power interruption.

4. **Remote sensing**—separate sensing terminals regulate the output directly at the load, compensating for voltage drops in the load feeder lines.

5. **Remote programming**—by resistance, voltage or current.

6. **Automatic series operation**—units may be connected in series up to 300 volts without any complicated connections to special terminals.

7. **Automatic parallel operation**—any number of units can be connected in parallel without use of complicated connections to special terminals.

8. **Master slave programming**—for one knob control of multiple units or for master control in series or parallel operation.

9. **Convection cooled**—no moving parts. Efficient heat transfer design. The units require no external heat sinks, no forced air, no special mounting to chassis or other heat removing medium.

10. **Advanced SEE-SAW® circuit** for power control, reduces transistor dissipation without the use of troublesome SCR's on higher power units.

11. **Completely protected** for all types of overload and short circuit conditions with automatic recovery after the removal of overload or short circuit.

12. **All specifications** based on maximum conditions, not typical or nominal as with many competitive units.

13. **Advanced printed card construction** provides ruggedness, full repairability and low cost.

14. **High quality features** assure outstanding reliability. Printed boards are glass epoxy, funnel eyeleted at stress points with plated wiring. Computer grade electrolytic capacitors are generously used. All parts are readily accessible with component symbolization applied.

15. **All components** are heavily derated.

16. **Unconditionally guaranteed.**

17. **Supplies are checked** for all major specifications. A complete test report is furnished with each instrument.

18. **Operation over a wide frequency range.**

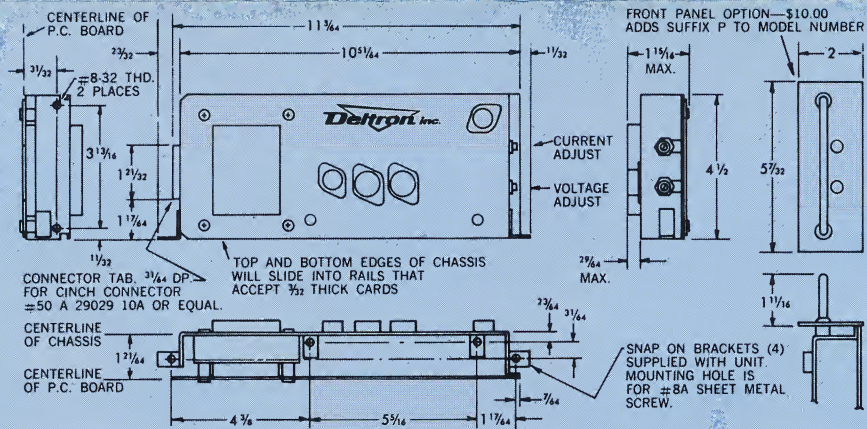
19. **Ultra low cost.**



## SPECIFICATIONS

SERIES CD					SERIES CA
TYPE	Constant voltage/constant current by automatic crossover				Constant voltage with automatic current limiting
OUTPUTS	See table 1				See table 2
INPUTS	105-125 VAC 50-400 cps. 210-250 VAC optional				Same
LOAD REGULATION	Constant voltage	Less than 0.01% or 1 mv			Less than 0.01% or 1 mv
	Constant current	Less than 0.05% or 500 $\mu$ a			
LINE REGULATION	Constant voltage	Less than 0.01% or 1 mv			Less than 0.01% or 1 mv
	Constant current	Less than 0.05% or 250 $\mu$ a			
RIPPLE & NOISE	Constant voltage	Less than 200 $\mu$ v			Less than 250 $\mu$ v
	Constant current	Less than 500 $\mu$ a			
RECOVERY TIME	Less than 50 microseconds				Same
OUTPUT IMPEDANCE	Less than KE/I ohms + 0.5 $\mu$ h				Same
	Freq.	DC-1KC	1KC-100KC	100KC-1MC	
	K	0.001	0.01	0.1	
STABILITY	Constant voltage	Less than 0.01% or 5 mv			Less than 0.01% or 5 mv
	Constant current	Less than 0.05% or 500 $\mu$ a			
TEMPERATURE COEFFICIENT	Constant voltage	Less than 0.01% or 1mv/°C			Less than 0.01% or 1 mv/°C
	Constant current	Less than 0.05% or 500 $\mu$ a/°C			
OPERATING TEMPERATURE	71°C max.				Same
OVERLOAD & SHORT CIRCUIT	Automatic crossover provides complete protection				Automatic current limit provides complete protection
REMOTE PROGRAMMING	Constant voltage	500 ohms/volt			500 ohms/volt
	Constant current	2000 ohms/max. rated current			
CONTROLS	Voltage and current adjust.				Voltage and current adjust.
SIZE	Refer to dimensional drawing				Same
WEIGHT	12 watt units 4 lbs. 24 watt units 5 lbs.				12 watt units 4 lbs. 24 watt units 5 lbs.

## DIMENSIONS



**Deltron inc.**

FOURTH AND CAMBRIA STREETS, PHILADELPHIA, PA. 19133  
PHONE: (215) 739-1101 TWX: (215) 569-8686





**Deltron inc.**

FOURTH AND CAMBRIA STREETS  
PHILADELPHIA, PENNSYLVANIA 19133

T. H. Nelson, Sys. Engr.  
Interlocking Systems Co.  
Box 1546  
Poughkeepsie, New York 12603

**Thank you for your interest in...**

**CD/CA Series**

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The attached literature will give you the information you requested. Should you have further questions about your specific requirements, they can be answered by:

┌ The Robert F. Lamb Co., Inc.  
P. O. Box #661, Uptown Station  
Kingston, N. Y. 12402  
Phone: (914) 338-8833

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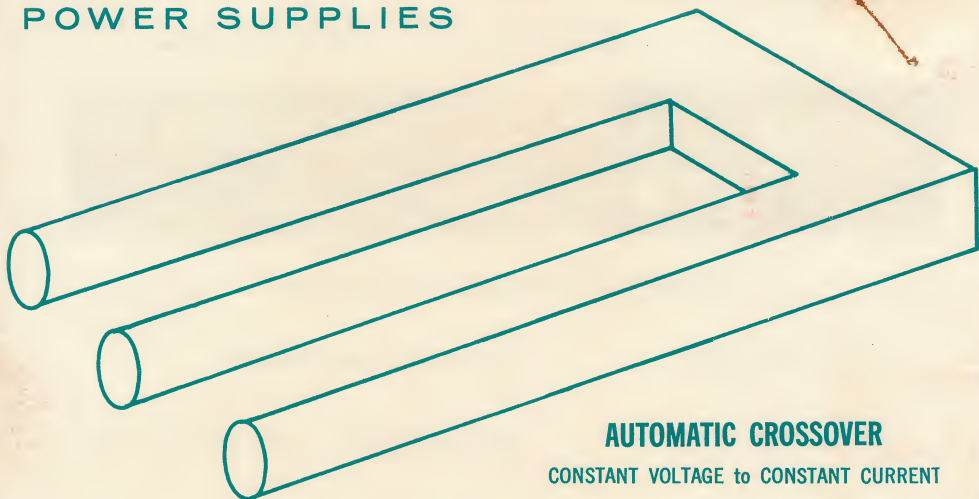
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